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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR     | ATTORNEY DOCKET NO.          | CONFIRMATION NO. |
|---|-------------|--------------------------|------------------------------|------------------|
| 10/619,926  | 07/15/2003  | Adrianus Johannes Heinen | USP169781A                   | 6818             |
| 7590<br>Daniel H. Golub<br>1701 Market Street<br>Philadelphia, PA 19103 |             |                          | EXAMINER<br>AVERY, BRIDGET D |                  |
|   |             |                          | ART UNIT<br>3618             | PAPER NUMBER     |

DATE MAILED: 05/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |  |                           |  |
|------------------------------|------------------------|--|---------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> |  | <b>Applicant(s)</b>       |  |
|                              | 10/619,926             |  | HEINEN, ADRIANUS JOHANNES |  |
|                              | <b>Examiner</b>        |  | <b>Art Unit</b>           |  |
|                              | Bridget Avery          |  | 3618                      |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-14 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-14 and 17-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/24/06</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-4, 6-14 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beltrame et al. (US Patent 5,343,128).

Beltrame et al. teaches a traction assembly including a wheel (3) having a rotational axis, a first radius extending around the rotational axis to an exterior surface of the wheel (3), the exterior surface of the wheel engages a static, non-rotating surface (11 as described in column 3, lines 30-31) while the traction assembly is in operation; an electric motor including a rotor, a stator core and a stator winding (17) situated inside the wheel; a gap situated around the rotational axis between the rotor (15) and the stator (17), as clearly shown in Figures 1 and 2 (see column 2, lines 5-7); the electric motor exerts torque that drives the wheel; the torque having an arm extending from the rotational axis to a surface of the gap; and the traction assembly has a traction ratio, defined as the arm of the torque divided by the first radius of the wheel. Re claim 6, see permanent magnets (15). Re claim 8, see operating and control means (23), as stated in column 3, lines 51-57. Re claims 9-14, see central shaft (5) and Figures 1-3. Regarding the teaching of a direct-drive motor, see column 1, lines 21-30.

Beltrame et al. lacks the exact teaching of a traction ratio which is larger than 0.57, 0.65, 0.7, and smaller than 1.0.

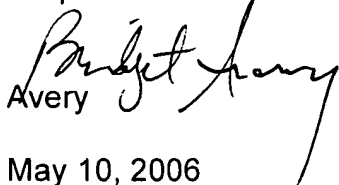
However, it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to provide a traction ratio that is larger than 0.57, 0.65, 0.7, and smaller than 1.0 since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. It would have also been an obvious design choice to design a wheel to have a traction ration that is larger than 0.57, 0.65, 0.7, and smaller than 1.0, to provide a wheel sized to accommodate the intended vehicle.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1-4, 6-14 and 17-20 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

3. Any inquiry concerning this communication should be directed to Bridget Avery at telephone number 571-272-6691.

  
Avery  
May 10, 2006



CHRISTOPHER P. ELLIS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600